PAU/UU1 30/91
Section 29

AUSTRALIA

Patents Act 1990

PATENT REQUEST: STANDARD PATENT/PATENT OF ADDITION

We, being the persons identified below as the Applicant, request the grant of a patent to the person identified below as the Nominated Person, for an invention described in the accompanying standard complete specification.

Full application details follow.

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[54] Invention Title: DEVICE FOR ADMINISTERING IMPLANTS

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BASIC CONVENTION APPLICATION(S) DETAILS

[31] Application Number	[33] Country	Country Code	[32] Date of Application
P43 20 754.5	GERMANY	DE	23 JUNE 1993

Basic Applicant(s): HOECHST AKTIENGESELLSCHAFT

Drawing number recommended to accompany the abstract .....

By our Patent Attorneys,
WATERMARK PATENT & TRADEMARK ATTORNEYS

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Registered Patent Attorney

DATED this 2st day of June 1994.

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(12) PATENT ABSTRACT (11) Document No. AU-A-64855/94
(19) AUSTRALIAN PATENT OFFICE

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DEVICE FOR ADMINISTERING IMPLANTS

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(57) Claim

1. A device for administering implants, comprising an active substance container with injection cannula and plunger, the plunger being arranged in a plunger channel which merges with continuity into the lumen of the cannula, wherein a holder device (5) for the implant (2) is arranged at the lumen-side end of the plunger channel (3).

Regulation 3.2(2)

AUSTRALIA

Patents Act 1990

ORIGINAL
COMPLETE SPECIFICATION
STANDARD PATENT

Application Number:

Lodged:

Invention Title: DEVICE FOR ADMINISTERING IMPLANTS

The following statement is a full description of this invention, including the best method of performing it known to us :-

HOECHST AKTIENGESELLSCHAFT HOE 93/F 170 DPh.HS/sch

Description

Device for administering implants

The invention relates to a device for administering implants, comprising an active substance container with injection cannula and plunger, the plunger being arranged in a plunger channel which merges with continuity into the lumen of the cannula.

Devices of the type mentioned are known from DE 3 802 158 A1. A disadvantage of these devices is that the rod-shaped implant, which can contain a medicament, can slip out of the plunger channel, which at the same time forms the implant chamber, and slip through the lumen of the cannula, as a result of which the implant cannot be used for administration.

The invention is intended to rectify this. The object is achieved by means of the device which is mentioned at the start, and in which a holder device for the implant is arranged in the plunger channel.

The holder device can comprise two elastic pins which are arranged opposite one another and which in each case have a rounded end protruding into the plunger channel. The holder device can moreover comprise two spring-loaded pins which are arranged opposite one another and which in each case have a rounded end protruding into the plunger channel. In a further embodiment, the holder device can comprise at least one spring-loaded ball, preferably two spring-loaded balls, protruding into the plunger channel.

The holder device not only prevents the inadvertent escape of the implant from the administration device, but also frees the plunger channel without damaging the implant.

The invention is explained in greater detail hereinbelow with reference to drawings which show only one embodiment.

Figure 1 shows, in a sectional view, the device for administering implants,
Figure 2 shows, in a sectional view, the detail "Z" in an alternative embodiment of the holder device, and
Figure 3 shows, in a sectional view, the detail "Z" in a further alternative embodiment of the holder device.

The device for administering implants, so-called rods, comprises an active substance container 1 with injection cannula 6 and plunger 4. The plunger 4 is arranged in a plunger channel 3, which also receives the preferably rod-shaped implant 2 and thus serves as an implant chamber. The plunger channel 3 must merge with continuity into the lumen of the cannula 6 so that cross-sectional variations are avoided on the route which the implant takes on being administered. In order to ensure that the implant 2 cannot leave the active substance container 1 inadvertently, a holder device 5 for the implant 2 is provided at the lumen-side end of the plunger channel 3. The holder device 5 protrudes slightly into the plunger channel 3 and thus forms an obstacle for the implant 2. In order to avoid deformations of the implant and/or abrasion of the implant during administration, the holder device 5 should be designed or arranged such that it moves out of the way of the implant, without damaging the latter, and so clears the way. The holder device 5 can comprise at least one pin, normally two pins 7, 8, in each case having a rounded end 11. The pins 7, 8 can be made of elastic material from various rubber types or the like (Figure 1). Similarly, pins 7, 8 made of non-elastic material, which are held in position by the pressure of springs 12, are suitable (Figure 2). In the case of the rigid bolts 7, 8 too, the end 11 protruding into the plunger channel 3 can be rounded. Instead of the pins 7, 8, balls which protrude into the plunger channel 3 via

their spherical caps 13 are equally suitable (Figure 3). The balls 9, 10 can, like the pins 7, 8, be made of elastic material or be held in their position with a spring 12. Spring resilience, elasticity and surface rounding should be such that the implant can pass the holder device 5 without deformation and/or abrasion losses.

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THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

~~Patent Claims~~xxxxxxxxx

1. A device for administering implants, comprising an active substance container with injection cannula and plunger, the plunger being arranged in a plunger channel which merges with continuity into the lumen of the cannula, wherein a holder device (5) for the implant (2) is arranged at the lumen-side end of the plunger channel (3).

2. The device as claimed in claim 1, wherein the holder device (5) comprises two elastic pins (7, 8) which are arranged opposite one another and which in each case have a rounded end (11) protruding into the plunger channel (3).

3. The device as claimed in claim 1, wherein the holder device (5) comprises two spring-loaded pins (7, 8) which are arranged opposite one another and which in each case have a rounded end (11) protruding into the plunger channel (3).

4. The device as claimed in claim 1, wherein the holder device (5) comprises at least one spring-loaded ball, preferably two spring-loaded balls (9, 10) arranged opposite one another and protruding into the plunger channel (3) via their spherical caps (13).

DATED this 21st day of June 1994.

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HOE 93/F 170

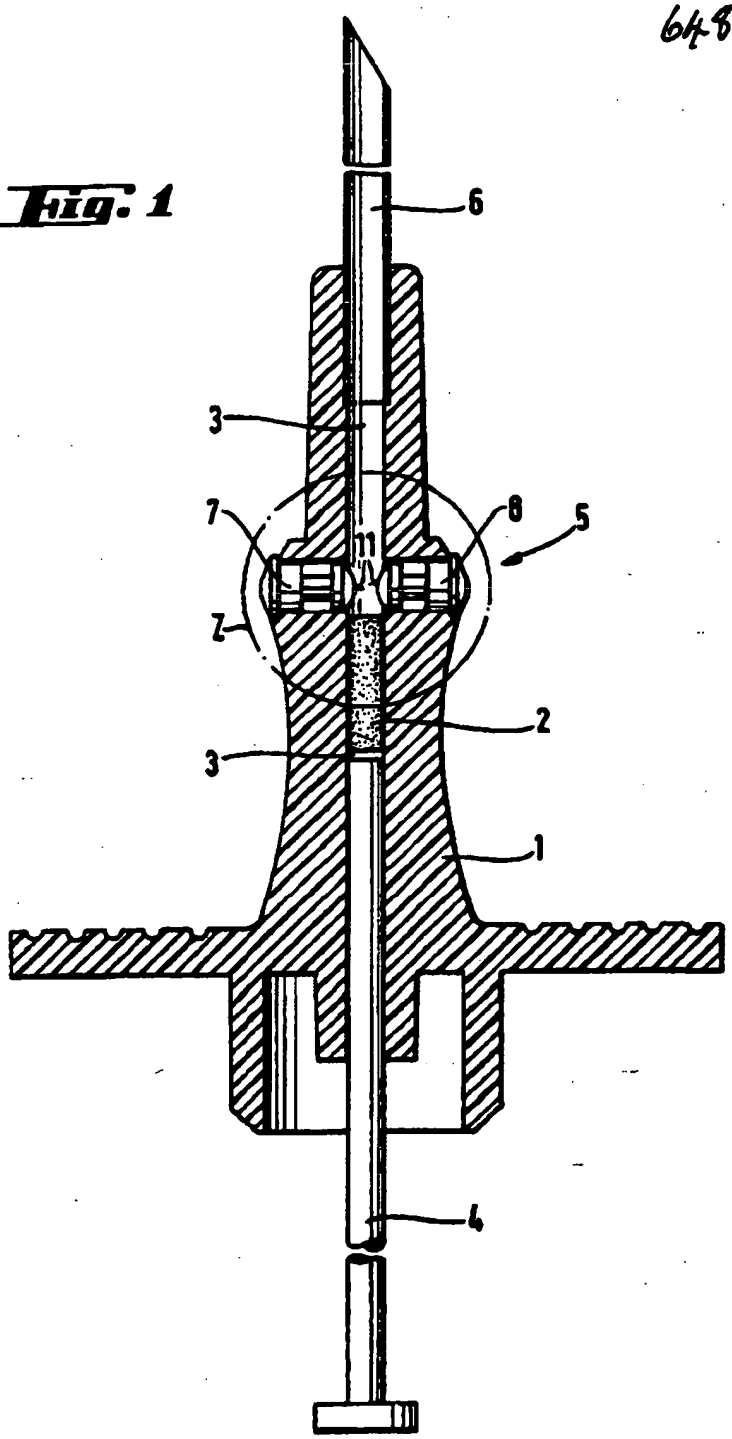
Abstract

Device for administering implants

In the device for administering implants, which comprises an active substance container with injection cannula and plunger, the plunger is arranged in a plunger channel. The plunger channel merges with continuity into the lumen of the cannula. A holder device (5) for the implant (2) is arranged at the lumen-side end of the plunger channel (3).

64855/94

Fig. 1



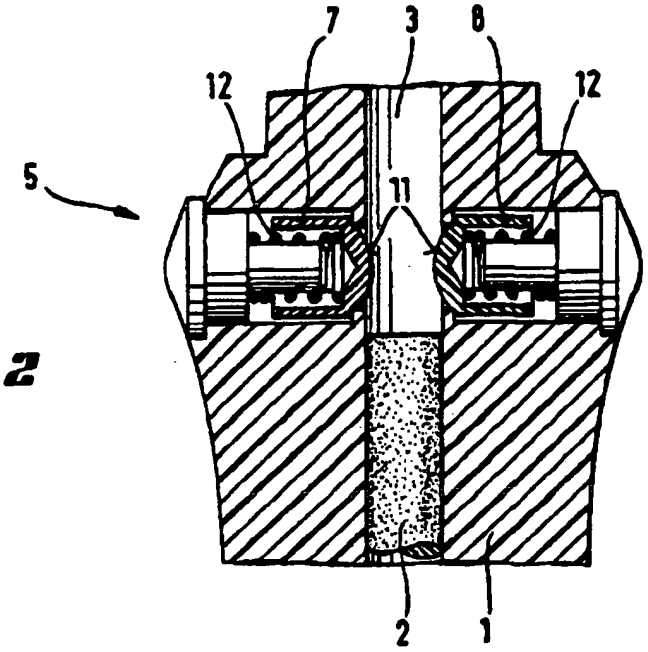


Fig. 2

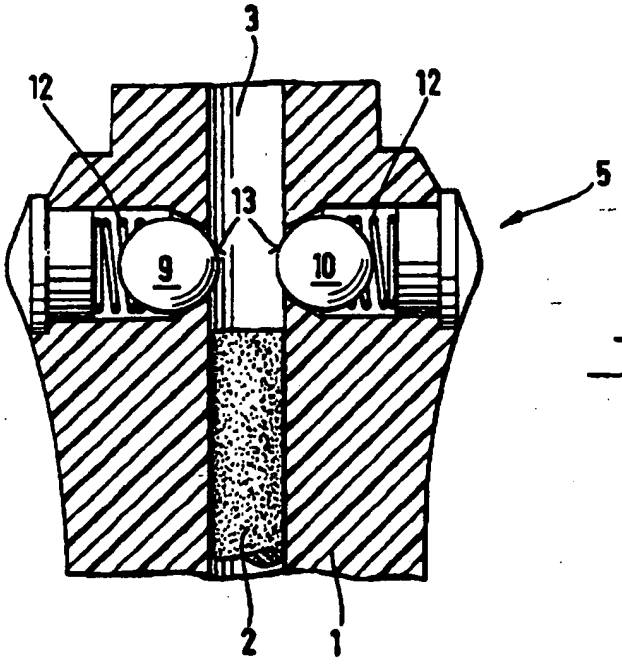


Fig. 3